REMARKS

The amendments presented above amend ten claims and add forty-two new claims. A marked-up version of each amended claim can be found on the pages immediately following the signature page of this document. A Transmittal Form, a Fee Transmittal form, a Petition for Extension of Time, and a check in payment of the fees generated hereby, also accompany this Response. Further, if it is determined that additional fees have been generated by this filing, the Commissioner is hereby authorized to charge Deposit Account No. 19-2260 in the amount of such fees.

Claims 21, 63, 82 and 94 have been objected to and the correction of various informalities has been suggested. The amendments presented above correct the informalities in the manner suggested by the Examiner. The amendments have been instituted in order to further clarify the claims. The amendments have not been made for the purpose of distinguishing the claims over prior art or for any other reason related to patentability.

Sections 4 and 5 of the Office Action reject various claims under 35 U.S.C. section 102(b) as being anticipated by U.S. Patent 5,845,229 of Stephen Rawlins (hereinafter "Rawlins"). For the following reasons, the Applicant respectfully disagrees with the explanations and conclusions cited in support of these rejections.

Section 5 states, for example, that "Rawlins teaches a method for identifying a characteristic of a bulk flowable material comprising the steps of: selecting a bulk flowable material (crop 41) having a determined property" and "periodically dispensing a property identification marker (54) into the bulk flowable material." The Rawlins method is described, for example, in columns 5 and 6 of his disclosure. The position of

the harvester is repeatedly determined as the harvester moves through a field (see col. 5, line 55; col. 6, lines 4-6). When the harvester is determined to be at a selected location within the field, a single marker is dispensed (see col. 6, lines 31-34). The marker will then travel with the material harvested from the selected site (col. 6, lines 44-46) so that at a later time the harvested material can be tested to determine a physical aspect ("quality") of the material harvested from the selected location (col. 6, lines 60-66).

Rawlins does not teach, however, a "periodic" or from-time-to-time dispensing of a property identification marker into the bulk flowable material to identify a determined property associated therewith. Rather, the aim of Rawlins is to indicate that the bulk flowable material accompanying the marker was taken from a specific, selected location within a field. This is accomplished in Rawlins by a one-time dispensing of just a single marker to identify the determined property (the "selected location" from which the material was harvested). Indeed, Rawlins teaches away from such a procedure since markers dispensed "periodically" could not accurately indicate the selected location.

Rawlins also teaches the selection of one or more locations (see col. 5, lines 40-42 and lines 49-51) within a field. Each location, however, is a different "determined property." Pending claim 1 references a determined "property" and a periodic dispensing of markers indicating that "property" (hence the term "property" identification marker). Assume that in Rawlins, it is desired to later test material harvested from a "location x" and from a "location y." When at "location x" Rawlins teaches the dispensing of a single marker to indicate that the surrounding material was harvested from "location x." Thus, there has been a selection of a material having a determined property (i.e. material originating from "location x"), but there has been no periodic dispensing of "location x"

identification markers into the selected material (i.e. the material originating from "location x"). Later, when at "location y," material originating at that location will be selected, but only one "location y" identification marker will be dispensed. Again, Rawlins teaches the dispensing of only one marker per location, not a periodic dispensing per location or per "determined property."

Regarding claim 55, this claim has been amended to improve its clarity. The term "consumable" has been replaced with "edible" in order to more clearly capture this aspect of the invention.

Consequently, Applicant believes that Rawlins does not anticipate independent claim 1 or the claims dependent thereon. Further, since claim 111 has been amended to specify a "location-independent" property, it is also distinguishable from Rawlins. Accordingly, Applicant requests that the rejection of sections 4 and 5 be withdrawn.

Sections 6 through 18 of the Office Action reject various groups of claims under 35 U.S.C. section 103(a). Regarding the rejections of section 7, Applicant states first that the Kouchi reference is from a non-analogous field. It is not concerned with placing a marker directly into a bulk flowable material. Rather, it teaches a more traditional application wherein a label is added to packaging containing the product. Further, for example, Applicant states that there is no suggestion to combine Kouchi and Rawlins other than perhaps the pending application itself. The application itself cannot provide the basis for the motivation to combine.

Regarding the rejections of section 8, Applicant notes that these rejections are based on information within the personal knowledge of the Examiner. No references are

cited in support thereof. Accordingly, Applicant requests that the Examiner supply an affidavit under 37 C.F.R. section 1.104(d)(2) in support of this rejection.

Regarding the rejections of section 9, Applicant believes the cited combination of Rawlins and Beller to be improper. First, the Beller reference is from a non-analogous field. In relation to claim 63, for example, Beller is not concerned with a dispenser and a marker for identifying a physical property of a bulk flowable material. Further, one skilled in the art of handling bulk flowable material would not look to a system for generating a customer receipt or a replacement label when considering how to mark a bulk flowable material, while it is in its "flowable" (unpackaged) state, with a physical characteristic. Further, for example, there is no suggestion to combine Beller and Rawlins other than perhaps the current Applicant's pending application itself. The application itself cannot provide the basis for the motivation to combine. Accordingly, Applicant requests that the rejection of claims 27, 54, 63 and the various claims dependent on claim 63 be withdrawn.

In addition, regarding the rejection of claim 54, Beller does not disclose any type of "shape-coded" marker. The hyphenation of "shape" with the term "coded" necessarily designates the communication of information via the shape of the marker to be dispensed (as opposed to, for example, information printed on or stored in a marker). Neither Rawlins nor Beller discloses a code that communicates information based on marker shape.

Regarding claim 68, neither Beller nor Rawlins teach or suggest physical attachment of a marker to a bulk flowable material. Regarding the rejection of claims 93 and 94, Beller does not disclose the use of radiant energy or radio frequency

identification markers. Regarding the stated rejection of claims 105-110, Applicant can find no rationale in the Office Action supporting this rejection. No references or official notice has been cited in relation to these claims. Accordingly, Applicant cannot enter a response thereto. Applicant requests that the rejection be withdrawn or that rationale supporting this rejection be communicated in a subsequent office action. Finally, the rejection of claims 100 and 102 is based on information within the personal knowledge of the Examiner. Applicant requests that the Examiner supply an affidavit under 37 C.F.R. section 1.104(d)(2) in support of this rejection.

Regarding the rejections of section 10, the rejected claims all depend upon a claim (claim 1) that Applicant believes to be allowable. Further, regarding the rejection of claims 35 and 36, there is no disclosure in Rawlins or McGregor of the marker being simply an ink-type substance that is to be dispensed into the bulk flowable material. Claims 35 and 36 have been amended to further clarify this aspect of the invention. In addition, the rejection of claim 36 is based on information within the personal knowledge of the Examiner. Applicant requests that the Examiner supply an affidavit under 37 C.F.R. section 1.104(d)(2) in support of this rejection.

Regarding the rejections of section 11, the rejected claims all depend upon a claim (claim 63) that Applicant believes to be allowable. In addition, regarding the rejection of claims 98 and 99, there is no disclosure in Rawlins or McGregor of the marker being simply an ink-type substance that is to be dispensed into the bulk flowable material. Claims 98 and 99 have been amended to further clarify this aspect of the invention.

Regarding the rejections of sections 12 and 13, Applicant believes Rittenburg to be non-analogous art. One skilled in the art would not look to Rittenburg for a way to

mark a bulk flowable material when using, for example, the method of claim 1 or the apparatus of claim 63. Rittenburg involves having an unharvested plant or a living animal take in a compound that can only be detected later by performing analytic tests. Further, Rittenburg is clearly not compatible with the invention of the claims, which involves a method and apparatus for dispensing a marker into a flowing bulk flowable material at or after the time of harvest or gathering. Further, there is no suggestion or motivation to combine the teaching of Rittenburg with Rawlins.

Regarding the rejections of section 14, the rejected claims depend upon a claim that Applicant believes to be allowable. In addition, Bilnoski, Jr., does not teach that such a marker was used in connection with a bulk flowable material. Further, the rejection of claim 32 is based on information within the personal knowledge of the Examiner. Applicant requests that the Examiner supply an affidavit under 37 C.F.R. section 1.104(d)(2) in support of this rejection.

Regarding the rejections of section 15, Applicant notes that Iseki does not disclose a property identification marker, the reading of a property identification marker or the routing of a material based on the reading of a property identification marker. There is no teaching, motivation or suggestion to combine a system such as that of Iseki (which according to the abstract does not read a property identification marker) with the system of Rawlins (which uses a marker to designate the origin of a harvested material). Further, regarding the rejection of claims 49 and 50, neither Rawlins nor Iseki teach a property identification marker that communicates information related to future handling or prior testing of the material.

Regarding the rejection of section 16, Applicant first references the discussion above related to the section 15 rejections. In addition, neither of the cited references discloses a segregation such as that claimed in claim 82. Thus, even if the combination was permissible, it would not encompass a routing designed to segregate genetically modified material from material that has not been genetically modified. Further, the motivation to combine cannot come from the pending application of the Applicant.

Regarding the rejections of section 17, it is first noted that claims 87 and 88 are dependent upon a base claim that Applicant believes to be allowable. Further, the label of Kanbar does not contain a "continuous" bar code. The Kanbar label spool contains many copies of the same bar code. It is thus a collection of many individual bar codes, none of which is continuous. In contrast, the spool of the claims contains one "continuous" (see Figs. 6-8) code (claim 87) that can be a "continuous" bar code (claim 88).

Regarding the rejections of section 18, Sandvik teaches a system to harvest seed and then package it so that seed of the same type (known to be such because it was harvested from the same row in the field) can be identified as such. Just prior to packaging, the seed is weighed and its moisture content is tested in order to determine if the seed should be packaged or placed in a discard bin. Pending claims 30 and 69-71 claim the periodic dispensing of markers to obtain a given marker to volume ratio. Claims 72-74 claim the periodic dispensing of markers to obtain a given marker to mass ratio. There is no teaching in Sandvik to do anything to achieve a given "marker to volume" or "marker to mass" ratio.

Further, although Sandvik does involve a weighing of the seed, it does not teach a periodic dispensing of a property identification marker to achieve a given marker to weight ratio. It also does not teach the reading of a property identification marker in order to calculate statistical information or to calculate a bulk flowable material's volume, mass or weight.

Finally, Applicant finds no written rejection of claim 43 in the Office Action. Consequently, Applicant can make no response regarding this claim. Applicant requests that claim 43 be allowed.

New claims 114 through 155 are being added via this Amendment and Response. The new method claims are closely related to the pending claims. The new claims are being added for the purposes of drawing out the various aspects of the elected subject matter and of claiming more completely the elected subject matter.

Applicant hereby requests the entry of the amendments and new claims presented herein. Applicant respectfully requests allowance of the pending claims.

Respectfully submitted,

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Below is a version of the rewritten amended claims 21, 35, 36, 55, 63, 82, 94, 98, 99 and 111, marked up to show all the changes relative to the previous version.

21. (Amended) The method according to claim 20, wherein said radiant energy marker comprises a [reader] radio frequency identification tag.

35. (Amended) The method according to claim 1, wherein said property identification marker [comprises] consists of a biodegradable ink.

36. (Amended) The method according to claim 35, wherein said biodegradable ink [comprises] consists of a soy-based ink.

55. (Amended) The method according to claim 1, wherein said property identification marker comprises [a consumable] an edible marker.

63. (Twice Amended) A material identification system, comprising:

a plurality of property identification markers; and

a marker dispenser capable of periodically dispensing said plurality of property identification markers into a flowing bulk flowable material;

wherein said plurality of property identification markers carry information identifying a physical characteristic of a bulk flowable material in which [it] said property identification marker is placed.

82. (Amended) The method of claim 81, wherein said step of automatically routing directs genetically modified bulk flowable material to a storage location collecting genetically modified bulk flowable material so as to segregate [it] said genetically modified bulk flowable material from bulk flowable material that has not been genetically modified.

94. (Amended) The material identification system according to claim 93, wherein said plurality of radiant energy markers comprises a plurality of [reader] radio frequency identification tags.

98. (Amended) The material identification system according to claim 63, wherein said plurality of property identification markers [comprises] consists of a plurality of ink doses.

99. (Amended) The material identification system according to claim 63, wherein said plurality of property identification markers [comprises] consists of a plurality of biodegradable ink doses.

111. (Amended) A material identification system, comprising:

means for indicating a location-independent property of a bulk flowable material; and

means for dispensing said means for indicating a location-independent property into a flowing bulk flowable material.